

Interference Search

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L3	38413	tetrahydrofuran	US-PGPUB	OR	ON	2006/06/12 11:14
L4	27826	thf	US-PGPUB	OR	ON	2006/06/12 11:14
L5	408	heteropolyacid	US-PGPUB	OR	ON	2006/06/12 11:14
L6	46342	3 4	US-PGPUB	OR	ON	2006/06/12 11:14
L7	5	5 near15 6	US-PGPUB	OR	ON	2006/06/12 11:15

Inventor search
EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L8	20	(pinkos adj rolf.inv.)	US-PGPUB	OR	ON	2006/06/12 11:22

=> s heteropolyacid?

L2 1954 HETEROPOLYACID?

=> s l1(10a) l2

24385 L1

L3 6 L1(10A) L2

=> d tot cbib abs

L3 ANSWER 1 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

2003:444717 Document No. 140:218195 Studies in reaction of tetrahydrofuran ring-opening polymerization catalyzed by heteropolyacid. Li, Shumian; Li, Zhancai; Jiang, Ling; Hou, Shoujun; Fang, Shaoming (Department of Chemical Engineering, Zhengzhou Institute of Light Industry, Zhengzhou, 450002, Peop. Rep. China). Huaxue Yanjiu Yu Yingyong, 15(1), 48-50 (Chinese) 2003. CODEN: HYYIFM. ISSN: 1004-1656. Publisher: Huaxue Yanjiu Yu Yingyong Bianjibu.

AB The synthetic methods and process conditions in THF ring-opening polymerization,

by using heteropolyacid H3PMo12O40 as catalyst, epichlorohydrin as promoter, and water or ethylene glycol as chain-adjusting agent, were studied. The yield of polymer reached 64.5% at optimum conditions, and the mol. weight can be limited within 2,000. The properties of polyurethane elastomer made with these polymers were as good as that made with imported polymer, and some properties were even better than that made with imported polymer.

L3 ANSWER 2 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

1999:634042 Document No. 131:337403 Study on polymerization mechanism of tetrahydrofuran with heteropolyacid-acetic anhydride catalyst. Yin, Hong; Chen, Zhi-rong; Yang, Zheng; Lu, De-wei (Dep. Chem. Eng., Zhejiang Univ., Hangzhou, 310027, Peop. Rep. China). Huaxue Fanying Gongcheng Yu Gongyi, 15(3), 288-294 (Chinese) 1999. CODEN: HFGGEU. ISSN: 1001-7631. Publisher: Zhejiangsheng Chuban Duiwai Maoyi Gongsu.

AB Heteropolyacid-acetic anhydride has high catalysis activity in the polymerization

of THF. The polymerization mechanism was investigated. The polymerization process

includes four steps: (1) ligation of THF and heteropolyacid, (2) chain initiation, (3) chain propagation, and (4) chain termination.

L3 ANSWER 3 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

1999:575681 Document No. 131:258282 Tetrahydrofuran polymerization initiated with heteropolyacid. III. Reaction behavior of ethylene oxide. Zhang, Afang; Zhang, Guangli; Zhang, Hongzhi (Department of Polymer Science and Engineering, Chemistry Building, Peking University, Beijing, 100871), Peop. Rep. China). Gaofenzi Xuebao (4), 502-505 (Chinese) 1999. CODEN: GAXUE9. ISSN: 1000-3304. Publisher: Kexue Chubanshe.

AB Reaction behavior of EO in the polymerization of THF initiated by H3PW12O40 was studied. The polymerization started upon addition of EO, and stopped with complete

consumption of EO, but started again when a new portion of EO was added, and also stopped after the new portion of EO was exhausted again. Part of EO was transformed into dioxane at the fairly beginning of polymerization in the

presence or absence of water, but the formation of dioxane could be suppressed by the addition of ethylene glycol. Kinetic data showed that the concentration of propagating species maintained constant during the

polymerization with

stepwise addition of EO. A reaction mechanism was postulated based on the structure anal. of the product and kinetics study.

L3 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

1999:462500 Document No. 131:229061 Effective promotion of tetrahydrofuran polymerization initiated with heteropolyacid. Zhang, Afang; Zhang, Guangli; Zhang, Hongzhi (Department of Polymer Science and Engineering, College of Chemistry and Molecular Engineering, Peking University, Beijing, 100871, Peop. Rep. China). Journal of Applied Polymer Science, 73(12), 2303-2308 (English) 1999. CODEN: JAPNAB. ISSN: 0021-8995. Publisher: John Wiley & Sons, Inc..

AB THF was polymerized using the heteropolyacid H3PW12O40 as the initiator and ethylene oxide as the promoter, which effectively increased the rate and conversion of the polymerization. Water and butylene glycol were used to control

the mol. weight of the product in the range of 1000-3000. The polymer was found to be polyether glycol containing 10-22 mol% oxyethylene moieties with hydroxyl groups at both chain ends. The m.p. was lower by about -10° as compared to polytetramethylene ether glycol having the same mol. weight. The concentration of active species remained unchanged in the main period of the polymerization, indicating the absence of chain termination. The values of the chain propagation rate constant of THF polymerization at 0 and 20° were found to be 3.78×10^{-3} and 1.98×10^{-2} L mol⁻¹ s⁻¹, resp., which are close to the rate constant of chain propagation of THF on ionic active species.

L3 ANSWER 5 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

1997:3028 Document No. 126:37790 Regeneration of deactivated solid heteropolyacid catalysts. Oogoshi, Shingo; Nomura, Mamoru (Idemitsu Kosan Co, Japan). Jpn. Kokai Tokkyo Koho JP 08281118 A2 19961029 Heisei, 6 pp; (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-83780 19950410.

AB When solid heteropolyacid catalysts containing heteropolyacid salts, which are scarcely soluble in polar liquid, are used in acid catalyst reaction, e.g., reaction of C4-6 isoparaffins with C3-5 monoolefins, and deactivated, the catalysts are regenerated by washing with liquid, e.g., H2O, C1-5 lower alcs., alkylene glycols, C≤8 lower alkyl ethers, cyclic ethers, ketones, CS2, aromatic hydrocarbons, cyclic saturated hydrocarbons, C4-10 aliphatic

saturated hydrocarbons. The catalysts are regenerated by retaining stability and suitable for manufacture of alkylated gasoline, isomerization of n-paraffin, alkylation of aromatic compds., etc.

L3 ANSWER 6 OF 6 CAPLUS COPYRIGHT 2006 ACS on STN

1989:439952 Document No. 111:39952 Heteropolyacids - new efficient initiators of cationic polymerization. Bednarek, Melania; Brzezinska, Krystyna; Stasinski, Jacek; Kubisa, Przemyslaw; Penczek, Stanislaw (Cent. Mol. Macromol. Stud., Pol. Acad. Sci., Lodz, Pol.). Makromolekulare Chemie, 190(5), 929-38 (English) 1989. CODEN: MACEAK. ISSN: 0025-116X.

AB Heteropolyacids are efficient initiators of cationic polymns., including polymns. of cyclic ethers and acetals, providing high-mol.-weight polymers. In several systems (e.g., THF, 1,3-dioxolane) the degree of polymerization is given by the ratio of concns. of monomer and initiator, as for the living system. In the polymerization of 1,3,5-trioxane, comparable polymerization rates may be

obtained with ≈ 25 times less initiator consumption on weight basis (≈ 103 times less on molar basis) than for typical initiators like BF3.OEt2.

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